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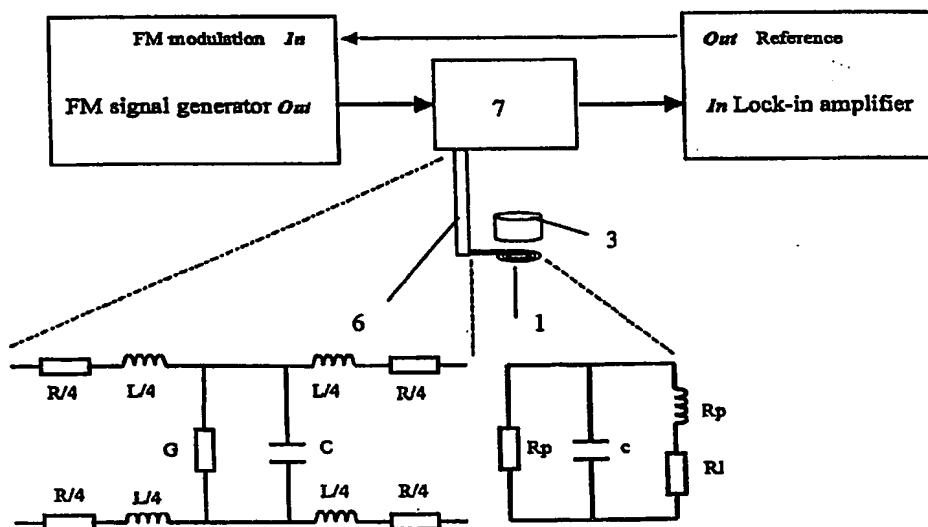
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(54) Title: **ELECTROMAGNETIC PIEZOELECTRIC ACOUSTIC SENSOR**



(57) Abstract: An acoustic sensor comprises at least one resonant element. A driver comprises an electrical coupling means and an electromagnetic field source arranged such that the electrical coupling means transfers currents to the electromagnetic field source. The electromagnetic field source produces an electromagnetic field that drives the resonant elements to produce acoustic waves directed to a predetermined part of a test sample. Also provided is an electromagnetic detector for receiving the acoustic spectrum omitted from a test sample and an electrical circuit connected to the drive around detector.



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